

RESOURCE CONSERVATION RECOVERY ACT SUBTITLE-C INSPECTION

FCC Environmental LLC
5603 Courtney Ave.
Alexandria, VA 22304

JUN 01 2012

RCRA Number: VAD980537302

Inspection Date: April 18, 2012

EPA Representatives: Justin Young
Physical Scientist/Inspector
Office of Enforcement, Compliance and Environmental Justice
410-305-3029

VADEQ Representative: Tammy Gambita
Hazardous waste Inspector
Northern Regional Office
703-583-3877

Facility Representative: Woody Smith
Regional Manager – MidAtlantic
(703)461-2662

Tim Giles
Plant Manager
(703)370-8155

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Background

The inspection of FCC Environmental LLC (the Facility) was conducted by the Office of Enforcement, Compliance and Environmental Justice (OECEJ) Region III, on April 18, 2012. EPA inspector, Justin Young presented his credentials to Mr. Giles as an authorized representative of the Agency, and then Mr. Young briefly explained the scope and time frame of the inspection to Facility personnel. Prior to the inspection, Mr. Young contacted the Virginia Department of the Environmental Quality (VADEQ). Mrs. Tammy Gambita was present for the inspection. Based on information provided by the EPA regional office, the inspector was to conduct a process based inspection and observe all potential waste streams, both hazardous and non hazardous. Mr. Young informed the Facility that he was Confidential Business Information (CBI) cleared. At any point in the inspection, the Facility needed to notify the inspector if the information was considered CBI. The inspector obtained a basic facility layout (**See attachment #1**). According to the Facility, they had a flood at the Facility in September 2011, which covered the Facility with water from the local stream (Backlick Run). The Facility stated they lost 3 empty tanks (2-antifreeze, 1 found fuel), an air compressor, and their office trailer with laboratory. The Facility also stated they had no breach of the tanks containing product based on a inventory of the tank levels. Because of the flood the Facility has removed two condensate tanks and replaced them with a single condensate tank. Also the 4,000 gallon antifreeze tank has been placed inside of the primary containment wall.

The first portion of the inspection began with Mr. Giles explaining the process conducted at the Facility. For the second portion of the inspection, Mr. Giles along with Mr. Smith escorted the inspector on the tour of the facility.

The inspection statements were based on information provided by Mr. Smith, Mr. Giles, along with site specific employees during the physical inspection of the Facility.

Process Description

The Facility is a used oil processor. The Facility brings in used oil, used antifreeze, and oily water from clients such as vehicle dealerships, quick lube shops, local and state municipalities, airports, metro, and gas stations. The Facility also brings in found fuel which consists of JP-4, JP-8, Jet A, and #2 oil. The Facility stated that they do not accept fats, greases, bunker fuel, #6 oil, gasoline, or solvents. The Facility sends out trucks (3,000-4,000 gallon capacity) to collect used oil at multiple sites during a single run. The Facility stated the trucks are weighted outgoing and incoming to determine volume of product collected. The company has a combination of salary drivers and commission drivers. The commission drivers are paid based on the volume of product picked up. Mr. Giles stated FCC pays their clients for the used oil they pick up based on volume and need. At each of the pick-up locations, the truck driver collects a "retain

sample,” of used oil, which is used for individual analysis if there is a problem with the overall truck contents once back at the Facility. Out in the field, each driver has a portable halogen sniffer used to test each pick up. The driver records the test from the portable sniffer as a pass or fail on the service order. This portable piece of equipment was stated by Facility to be calibrated once a month based on a “hot sample” meaning over 1,000 ppm halogen content based on analytical results, to see if the sniffer is correctly identifying the halogen content. Even if the pick up at a client fails the sniffer test, the material is picked up and brought back to the Facility, where further tests are conducted on the load. The truck driver has a route log called a Service Activity Report (SAR) along with a service order for each client, and a receiving report, which details information about each pickup location. The information provided on these documents includes the name of the client with address and the volume of the product picked up (See **attachment #2**). Before the truck is unloaded at the Facility, they take a sample from the truck via a colowassa. 150ml of this sample is collected and used as a retain sample and the rest is used to run the analytical tests. The onsite lab then runs tests for percent water and a X-Ray test for halogen content. For the percent water test, the Facility uses a water distillation test that has a combination of used oil and Isopar-E solvent. This material is dumped into the used oil bucket in the lab. Once the samples are analyzed, they get put into a 5 gallon used oil bucket in the lab, which was stated to be emptied daily back into the onsite processing. Retain samples are kept for a week to a week and a half, then dumped back into the lab’s used oil bucket. If a truck is picking up oily water, there is no “retain sample” collected for each stop. The incoming oily water gets an additional pH test via pH test strips.

If a batch sample from the incoming used oil truck is “hot” based on the analytical tests, which is when the halogen content of the truck is over 1,000 ppm, the Facility goes back to each individual retain sample to locate the client who had the high halogen content. The Facility then checks the service order to make sure the client initialed on the CESQG line for the used oil rebuttal presumption. Once the truck returns to the Facility, based on the clients and truck content, the truck enters the receiving area to unload the contents into one of the onsite tanks. The table below shows a breakdown of each tank.

FCC Environmental Tank Identification

Tank #	Material Stored*	Capacity* (Gal.)	Destination/Usage*
1	Used oil (See photo #1)	20,000	Storage prior to processing
2	Used oil (See photo #2)	20,000	Storage prior to processing

3	Used oil (See photo #3)	20,000	Storage prior to processing
4	Used oil (See photo #4)	20,000	Storage prior to processing
5	Oily Water (See photo #5)	20,000	Sent off site for further processing (FCC in Wilmington, DE, RECO in Richmond, or Water Depot in MD)
6	Used oil processing tank (See photo #6)	15,000	Processing
7	Used oil processing tank (See photo #6)	15,000	Processing
8	Used oil processing tank (See photo #6)	15,000	Processing
9	Used oil processing tank (See photo #6)	15,000	Processing
10	Oil (See photo #7)	25,000	Sold a RFO
11	Oil (See photo #7)	25,000	Sold as RFO
12	Jet A (See photo #8)	10,000	Heating of process
13	Oily water (See photo #9)	10,000	Sent off site for further processing (FCC in Wilmington, DE, RECO in Richmond, or Water Depot in MD)
14	Used oil (See photo #10)	1,000	Surge tank
15	Used oil (See photo #11)	250	Condensate tank

16	Antifreeze (See photo #12)	8,000	Sold
17	Used Antifreeze (See photo #13)	20,000	Sent off site for further processing
18	Antifreeze (See rear of photo #8, semi transparent tank)	4,000	Sold
19	Fuel oil (See photo #14)	275	Heatec Burner tank

*** Based on Facility statements and/or inspection observations.**

Depending on observations and test results the Facility then decides what tank to pump and store the contents. Any of the incoming material that has a water content greater than 35 percent is considered oily water. Based on the Facility's Waste Acceptance Plan (WAP), all incoming material is managed under the used oil regulations. The incoming oil is put through a course and fine strainer before being pumped into the storage tanks. The materials collected in the strainers are emptied on a daily basis into the front separator box. This separator box is used to get out all of the free oil from the material. Once there is no more recoverable free oil, the material left in the strainer is drummed up and sent to FCC Baltimore facility for solidification and ultimately disposed at Modern Landfill. At the time of the inspection, the Facility has not done a hazardous waste determination on the material being sent to FCC Baltimore. Once the material is filtered through the strainers, it is pumped into storage tanks. From the storage tanks, the Facility pumps used oil into one of the four processing tanks. The Facility uses a hot oil heater system (Heatec). The Facility heats up a secondary oil that is pumped through piping in a closed system. The oil used is HTF Conoco 3000. The Facility changed out the oil in this system 3 years ago, which was just put back into the system for processing. The Facility stated they have the ability to run any combination of the four processing tanks at any given time based on demand. A typical processing time is about 12 hours at 390F. Once the used oil is processed, it is blown through a SWECO brand filter mesh screen (100mesh) into a surge tank for cooling, which is where the Facility takes a batch sample of the tank via a sample tap. The Facility tests the oil for PCB's, water, and metals (the metals sample is sent to Wilmington DE facility for testing). From the surge tank, the oil is pumped into the finished oil tanks. From the finished tanks, there is a loading area where trucks await the transfer of finished recycled fuel oil (RFO).

The screened material from the SWECO filter is collected in a 55 gallon drum and piped to a trough at the back end of the containment area surrounding the tanks. Along with the screened material, the water condensate from the processing tanks goes into the 250 gallon condensate tank and emptied into the trough. The material in the trough is sent to tank #13. During the processing of the used oil water is bled off and pumped into an oily water tank. The processing tanks and surge tank are connected via piping to a

vapor recovery system. The system was stated by the Facility to be a negative pressure system. The vapor recovery piping leads from the processing and surge tanks to a biofilter, which is made up of bacteria and wood chips. From the biofilter, the vapor stream goes through a dual carbon filter, then finally to a cooling tower. The Facility stated the biofilter and carbon filters had a designed life span of 10 years. Breakthroughs for the biofilter and carbon filters are based on olfactory sense of Facility personnel. The Facility stated there has never been a change out of the biofilter and approximately six years ago the spent carbon filters were sent to Baltimore for solidification purposes as non hazardous based on analytical. The Facility sells RFO light #5 oil to clients such as Virginia Paving and Francis Oday, along with sending it to Bayonne, NJ to sell on the open market.

Along with the used oil, the Facility collects antifreeze from clients. The process for anti freeze starts with the Facility going to pick up antifreeze from clients and conducting a field test for freeze point. The antifreeze is then brought back to the Facility and placed into the used antifreeze tank until it becomes full and then it is off loaded and transported to their facility in Rockville, VA for further processing. The Facility receives new antifreeze from their Rockville Facility to sell to clients.

Permit Status

The Facility notified as a Conditionally Exempt Small Quantity Generator (CESQG) of hazardous waste and a processor, transporter and marketer of used oil for energy recovery. The facility is not permitted to treat, store or dispose of hazardous waste.

Hazardous, Universal, Oil, and Solid Waste Generation

Hazardous Waste Generation

- Aerosol can and paint waste – The Facility generates waste aerosol cans and paint cans.

Universal Waste Generation

- Used Lamps – The facility generates some used fluorescent lamps, which are stored in the warehouse building prior to disposal.

Used Oil Generation

- Used Oil – The Facility collects and sells used oil to be burned for energy recovery. The used oil is stored in tanks onsite prior to sale.

Solid Waste Generation

- Tank cleanout sludge – The Facility generates sludges from tank cleanouts that are handled by a third party contractor (Atlas Environmental).
- Sump/pit cleanouts – The Facility generates sludges from the cleanout of sumps and pits in the secondary containment of the tank farm. These wastes are collected and stored in the “barf box” prior to being sent off site to Modern landfill for disposal.
- Filters/rags – The Facility generates/collects filters and rags from clients along with the maintenance of the Facility. These wastes are collected in 55 gallon drums and sent to their Baltimore location, where the material is used for solidification of the “barf box” prior to being sent off site to Modern landfill for disposal.

Inspection Observations

Sample retain cabinet

The first area observed by the inspector was the sample retain cabinets, which was located next to the office trailer. Within the cabinet, there were multiple retain samples being stored (**See photo #15**). As mentioned earlier, the retain samples are held for a period of a week to week and a half before being dumped into a 5 gallon bucket in the lab. At the time of the inspection, the oldest retain sample was dated 1-25-2012. Also being stored in the cabinet during the inspection was methanol and hexanes (**See photo #16**), which is used by the lab for the GC machine. Located on the bottom right of the cabinet, there was a container with a label stating methanol NaOH3 RECO solvent recovery (**See photo #17**). At the time of the inspection, the Facility was unsure of how the contents of the container were used onsite.

Tank Farm

The next area observed by the inspector was the tank farm including the receiving and loading areas (Refer to above mentioned tank identification table). At the receiving area there are connection points for the trucks to hook up. There are pumps connected to 2 and 3 inch piping, which allows the Facility to pump the contents of the truck to a designated tank based on visual observations and testing. **Photo #18** shows an overview of the receiving area. Located next to a filter and pump at the receiving area is the front separator box (**See photo #19**). This material is drummed up and sent to the Facility’s Baltimore location for solidification and disposal. Surrounding the receiving area is a blind sump/pit (**See photo #20**). The sump/pit, once full, is pumped back into one of the storage tanks. Around the entire tank farm is a primary containment wall. The Facility stated that all of the liquid contents such as rain water collected between the primary

walled containment and a secondary berm (**See photo #14**), drains into one of the three sumps/wells onsite (**See photos #21, #22, #23**). From the sumps/wells, the Facility pumps the liquid into the system for cooling of the process or ships the liquid out as oily water. At the time of the inspection there was a drainage pipe leading from the biofilter building to one of the sumps. The Facility stated they have not noticed any discharges from this pipe to the sump. Tank #12, which is located toward the back of the tank farm next to the biofilter, is for the Facility's Jet A fuel, which is used to run the Facility. At the time of the inspection, the tank was labeled #2 fuel. The inspector next observed the four processing tanks. None of the four tanks had any labels denoting used oil. The processing tanks had a vapor recovery system connected via piping (**See photo #24**) to the biofilter unit (**See photo #25**). The biofilter unit was stated by the Facility to be a sealed unit. From this sealed unit the vapor stream is pumped through two carbon filters (**See photo #26**) then to the cooling tower (**See photo #27**). The Facility is currently experimenting with connecting the vapor recovery system to the surge tank. Prior to this connection to the vapor recovery system, the surge tank had a vent to allow excess vapors to escape the tank directly into the atmosphere (**See photo #10**). The inspector observed the SWECO mesh filter connected to the surge tank, which collects material into a 55 gallon drum (**See photo #28**) and piped to the trough (**See photo #29**) located on the back side of the tank farm. The material from the trough is pumped into oily water tank #13 to be sent off site. The Facility stated they clean out the buildup of material in the trough the same time as the tank cleanouts, which was stated to be cleaned by Atlas Environmental. Atlas Environmental leaves the tanks cleanouts onsite for the Facility to handle the waste stream. The Facility sends the tank cleanouts to their Baltimore facility for disposal. The last tank cleanout was conducted 18 months ago. The Facility does not have a record of an official hazardous waste determination on the tank cleanouts. Located adjacent to the surge tank, was the sample tap location where the Facility tests the outgoing on specification oil (**See photo #30**).

Drum/roll off storage area

Located on the outside of the primary containment wall on the back side of the Facility is a drum storage area. At the time of the inspection there were 20 drums, eight of which were empty (**See photo #31**). The contents of the drums were stated to be a combination of separator box solids, absorbents, and trash. The Facility stated they ship out these drums to their Baltimore Facility for disposal once a month.

Storage Sheds

On the back side of the property are product storage sheds. In one of the buildings the inspector observed 1-55 gallon container of kerosene (**See photo #32**), 2-55 gallon black containers of Isopar-E, and 1-55 gallon semi transparent container of cleaner based on Facility statement, which did not have a label and was half full (**See photo #33**). Located in another storage shed was maintenance equipment that included aerosols such as brake cleaners and solvent sprays (**See photos #34 and #35**). At the time of the inspection the Facility stated the aerosol cans, once empty, were being handled as universal waste.

Lab

The EPA inspector observed the temporary lab onsite. This is where the Facility runs their samples for water content along with halogen content. The Facility conducts a water distillation test, which uses a solvent Isopar-E solution. Once the sample is run, the combination of this solvent and used oil is dumped into a used oil 5 gallon container in the lab (**See photo #36**). This container is emptied into the separator box in the tank farm area to be drained and put into the process.

Warehouse

The Facility has a warehouse and offices up the street from the used oil processing area. At this location the Facility has a warehouse that stores containers of non hazardous waste and absorbents collected from clients (**See photos #37, #38, and #39**).

There is a storage area in the warehouse for universal waste light tubes (**See photo #40 and #41**). At the time of the inspection there were a total of 7 containers storing waste lamps. The cardboard containers were not properly closed and there was no label or start accumulation date on the containers. The Facility stated they do not have any other means by which to track the contents of the cardboard containers.

Records Review

Manifest and LDR

The Facility stated they do not send off hazardous waste from the Facility and they do not have any records of manifests or associated LDR's.

Training

The Facility as mentioned earlier conducts annual used oil compliance training.

Used oil Analysis Plan

The inspector obtained a copy of the Facility's used oil analysis plan dated March 2008 (**See attachment #3**).

Testing and Analysis

The Facility provided the inspector with an analytical profile for the oily water being shipped out for further processing. The profile details the oily water as a non hazardous waste based on generator knowledge (**See attachment #4**). The Facility also

supplied the inspector with a copy of their fuel oil analysis (**See attachment #5**) for the RFO oil. The Facility stated they receive a fax from their sister facility in Wilmington, DE for the metals testing and transcribe this information into their fuel oil analysis specification sheet. According to the used oil analysis plan the method used for testing of lead, arsenic, cadmium, and chromium is ASTM D5185, but a test conducted on 4/14/2012 shows a method of SW-846-7000B. The Facility stated this was just a paperwork error and the analyst has not updated his form.

Oil Discharge Plan/Contingency Plan

The inspector reviewed both the oil discharge and contingency plans. The emergency coordinator information for the (Alternate: branch manager) was Bernard Snyder, which was incorrect according to the Facility. **Attachment #6** shows a copy of the emergency coordinators with regards to the contingency plan.

Biennial Report

At the time of the inspection, the Facility was unable to provide the inspector with a biennial report for their used oil processing.

Rebuttal presumption documentation

The inspector obtained some documentation on a multi load pick up (3 clients) of oily water on 1/12/2012 (**See attachment #7**). The clients associated with the pickups were Elevator Control Service out of Upper Marlboro, MD, Dubrook Concrete out of Chantilly, VA, and Potomac German Auto out of Frederick, MD. The information from the lab tests reported the halogen content of the overall load was 6158 ppm. As stated earlier, the Facility does not collect individual retain samples from oily water loads. Each client signed stipulating they were a CESQG of hazardous waste, but according to the OTIS database, Potomac German Auto was a SQG of hazardous waste. The Facility did not determine the origins of the halogen content.

Facility's Response letter

Subsequent to the inspection, the Facility sent the EPA inspector a letter along with documents and photos through a series of emails detailing some of the closeout concerns (**See attachment #8**).

List of Photos

1	Tank #1
2	Tank #2
3	Tank #3
4	Tank #4
5	Tank #5
6	Tanks #6, #7, #8, #9 (From left to right)
7	Tanks #10, #11
8	Tank #12
9	Tank #13
10	Tank #14
11	Tank #15
12	Tank #16
13	Tank #17
14	Tank #19 (directly behind pickup truck)
15	Retain samples
16	Products used in the lab
17	Container with multiple contents listed
18	Receiving area
19	Front box separator
20	Blind sump in receiving area
21	Sump 1 of 3
22	Sump 2 of 3
23	Sump 3 of 3
24	Vapor recovery piping
25	Biofilter unit
26	2 carbon filters
27	Cooling tower
28	Mesh filter and 55 gallon debris collection drum
29	Collection trough
30	Sample tap
31	Drum storage area
32	Drum of kerosene
33	Drums of Isopar-E and cleaner
34	Aerosol cans
35	Up-close of aerosol cans
36	Used oil container in lab
37	Non hazardous labeled drums in warehouse
38	Up-close of labels on drums in warehouse
39	Up-close of labels on drums in warehouse
40	Universal waste containers in warehouse
41	Universal waste containers in warehouse

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Photo 1: Tank #1

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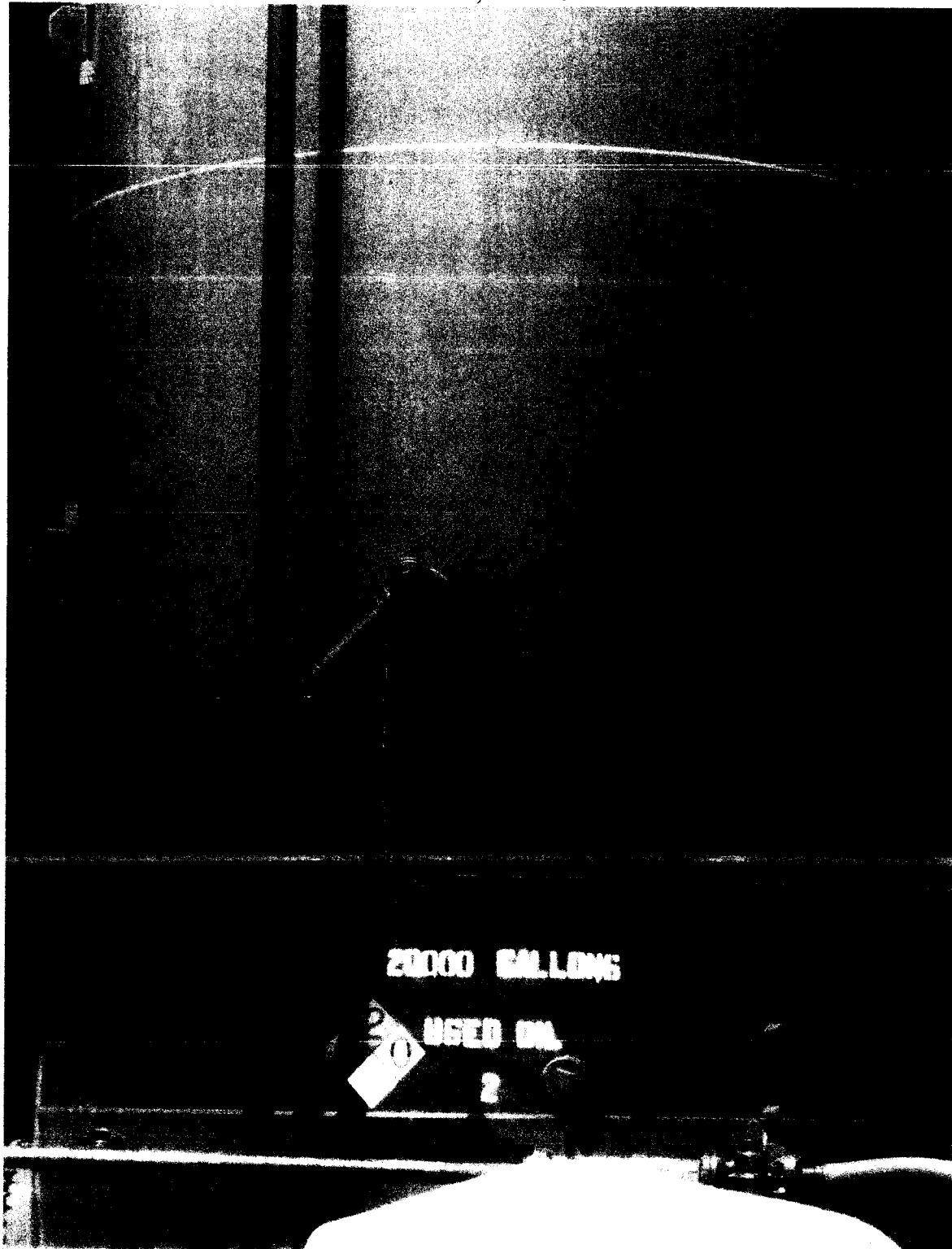


Photo 2: Tank #2

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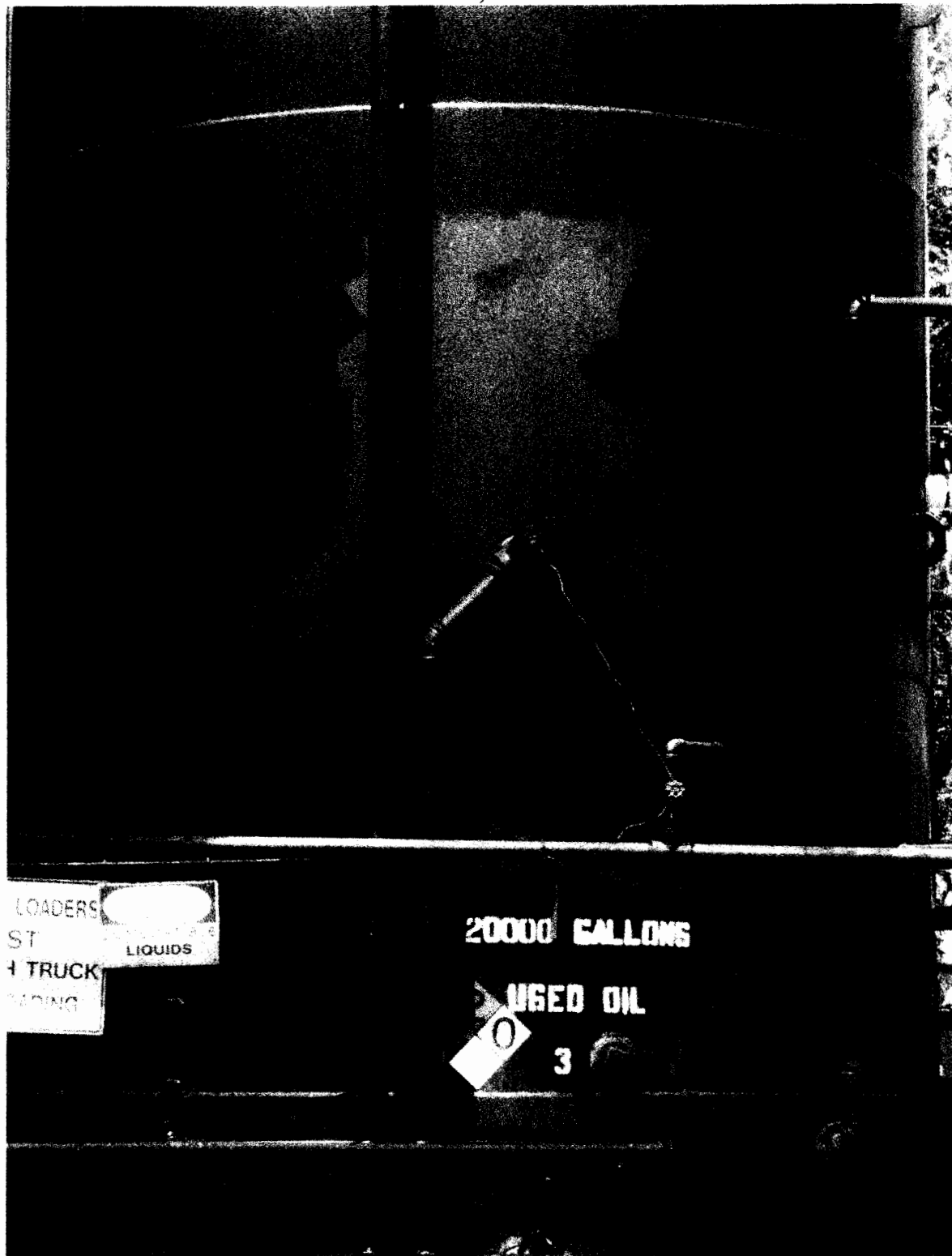


Photo 3: Tank #3

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Photo 4: Tank #4

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Photo 5: Tank #5

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Photo 6: Tanks #6, #7, #8, #9 (From left to right)

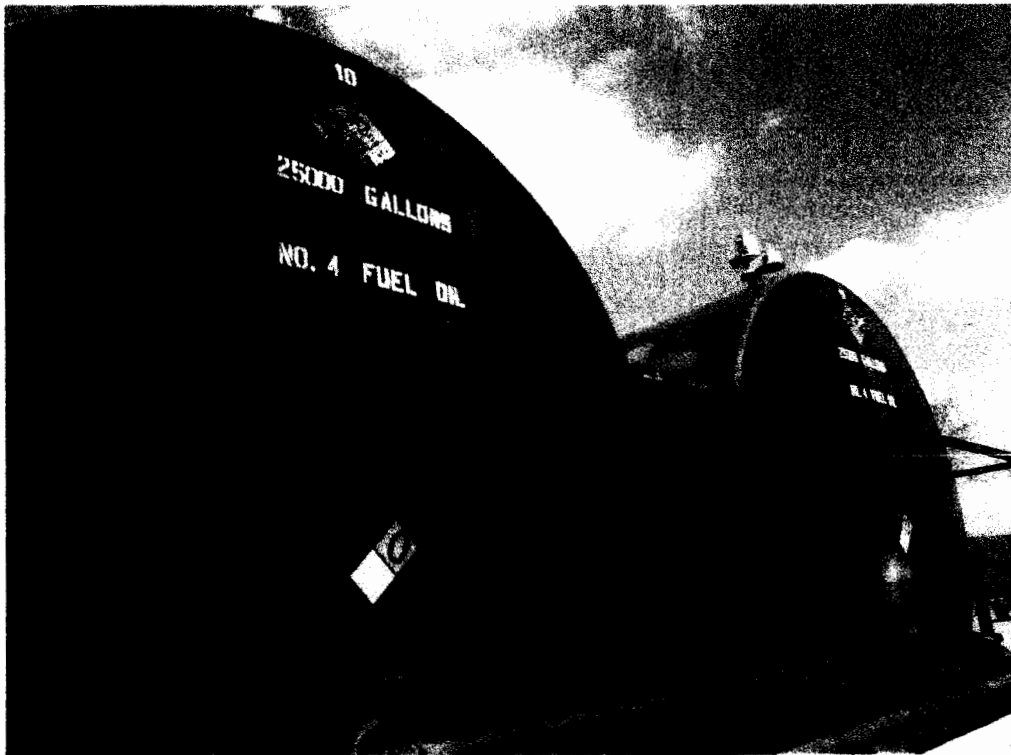


Photo 7: Tanks #10, #11

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Photo 8: Tank #12

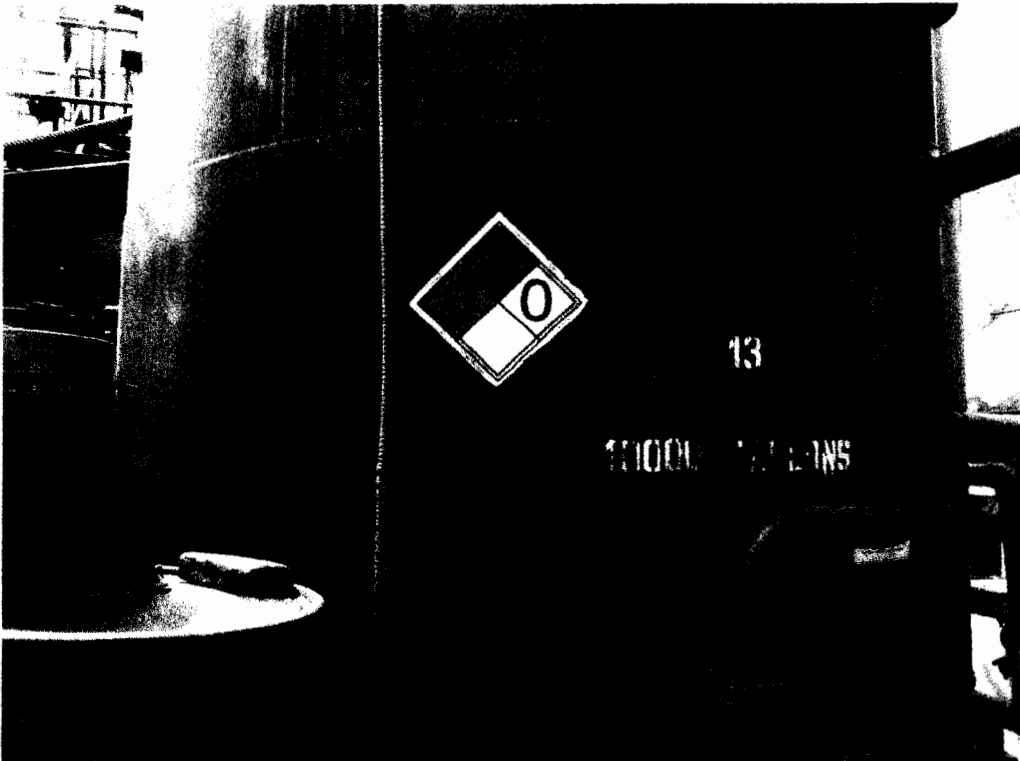


Photo 9: Tank #13

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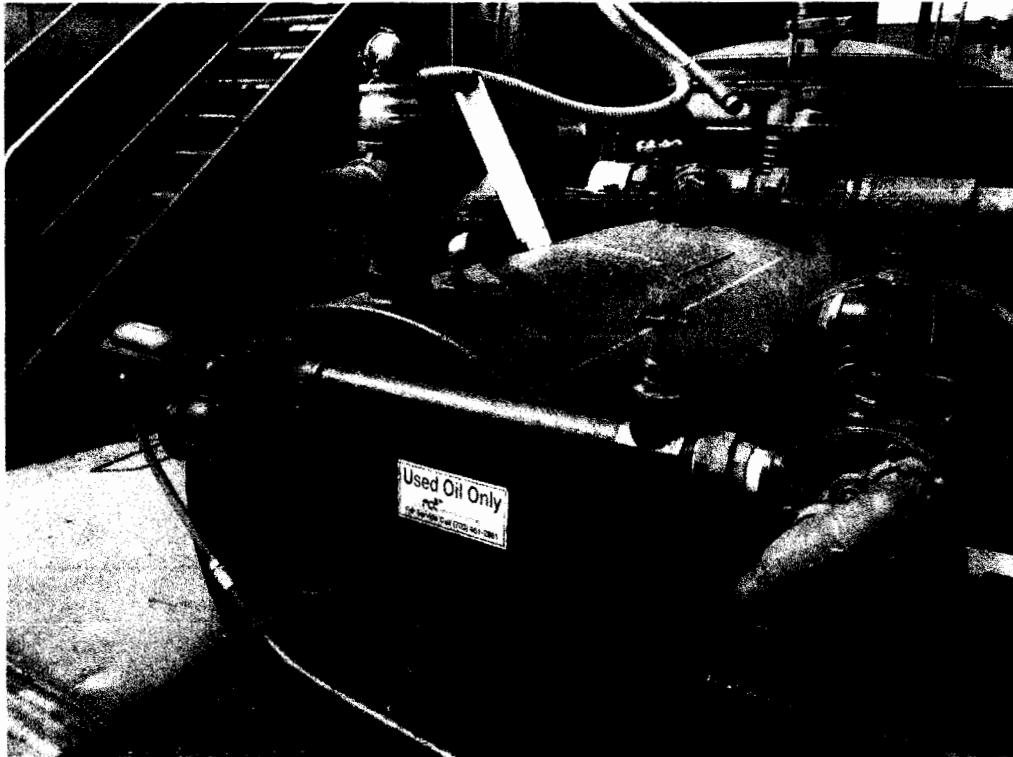


Photo 10: Tank #14



Photo 11: Tank #15

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Photo 12: Tank #16



Photo 13: Tank #17

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Photo 14: Tank #19 (directly behind pick up truck)

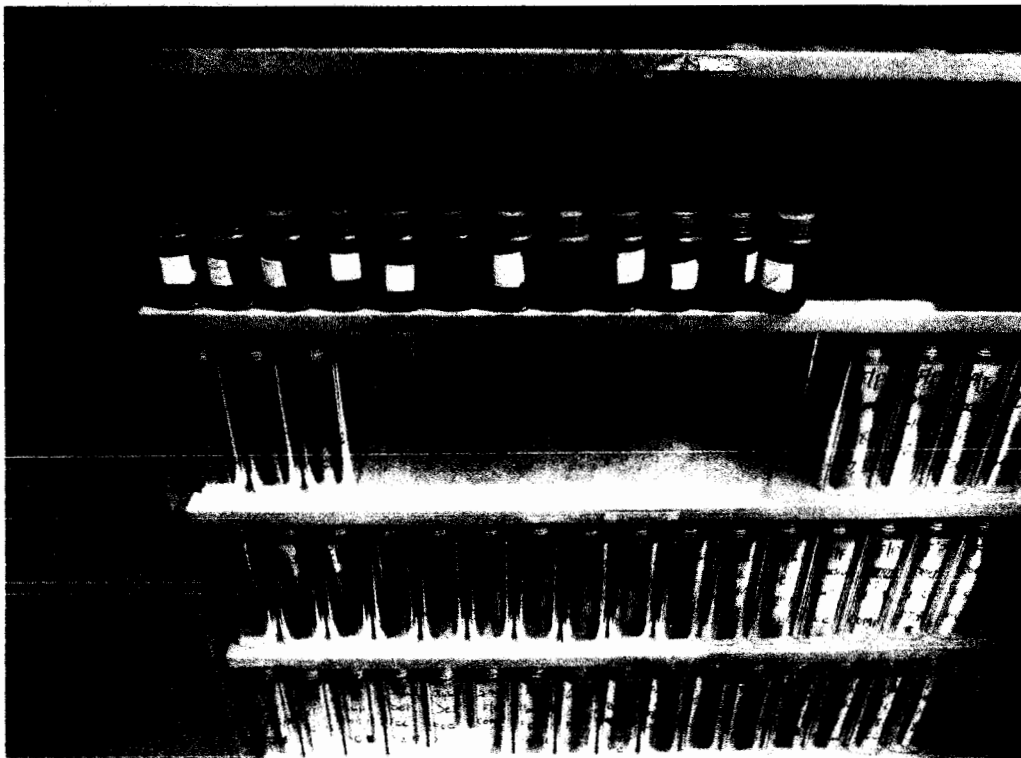


Photo 15: Retain samples

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Photo 16: Products used in lab

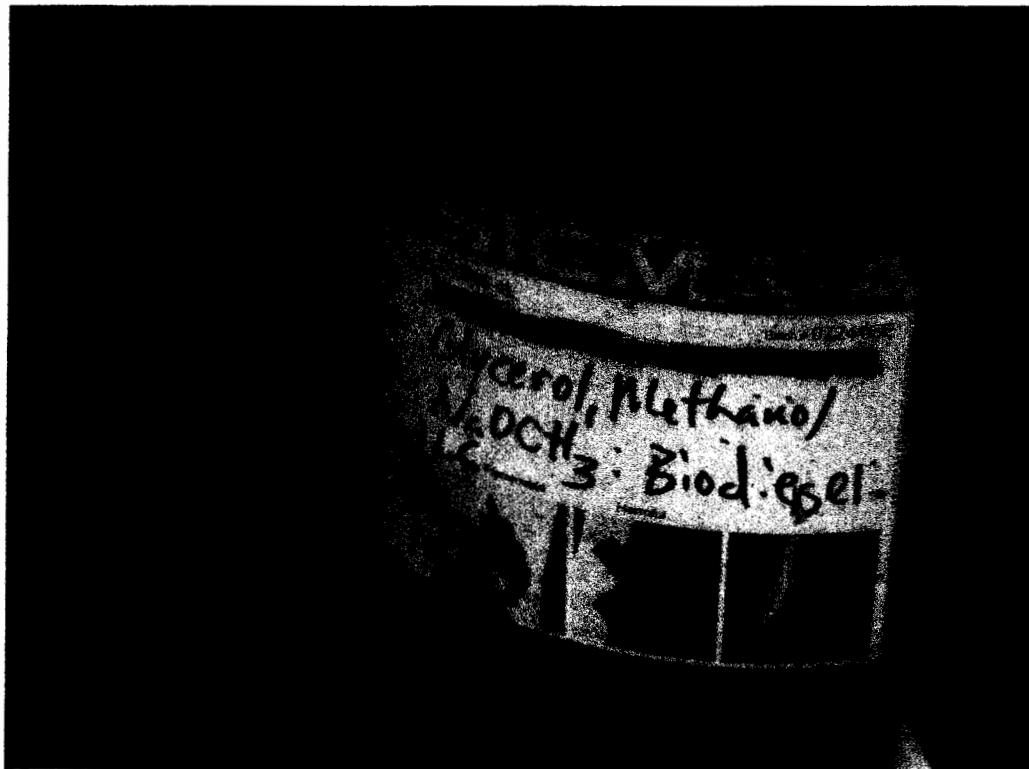


Photo 17: Container with multiple contents listed

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Photo 18: Receiving area

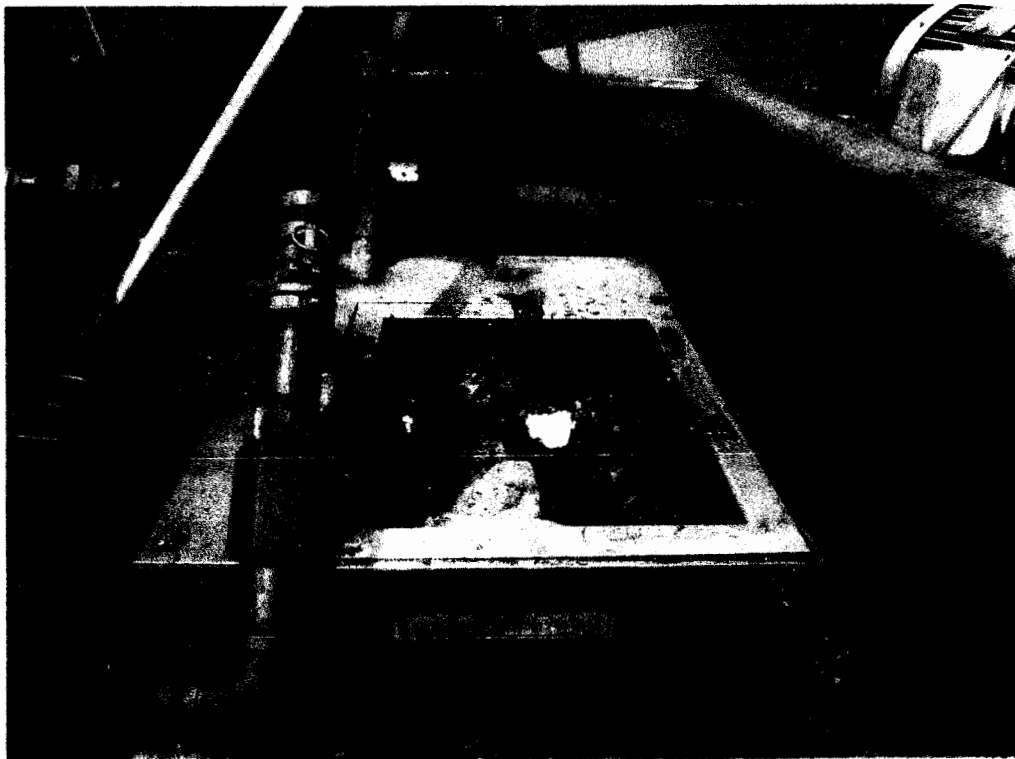


Photo 19: Front separator box

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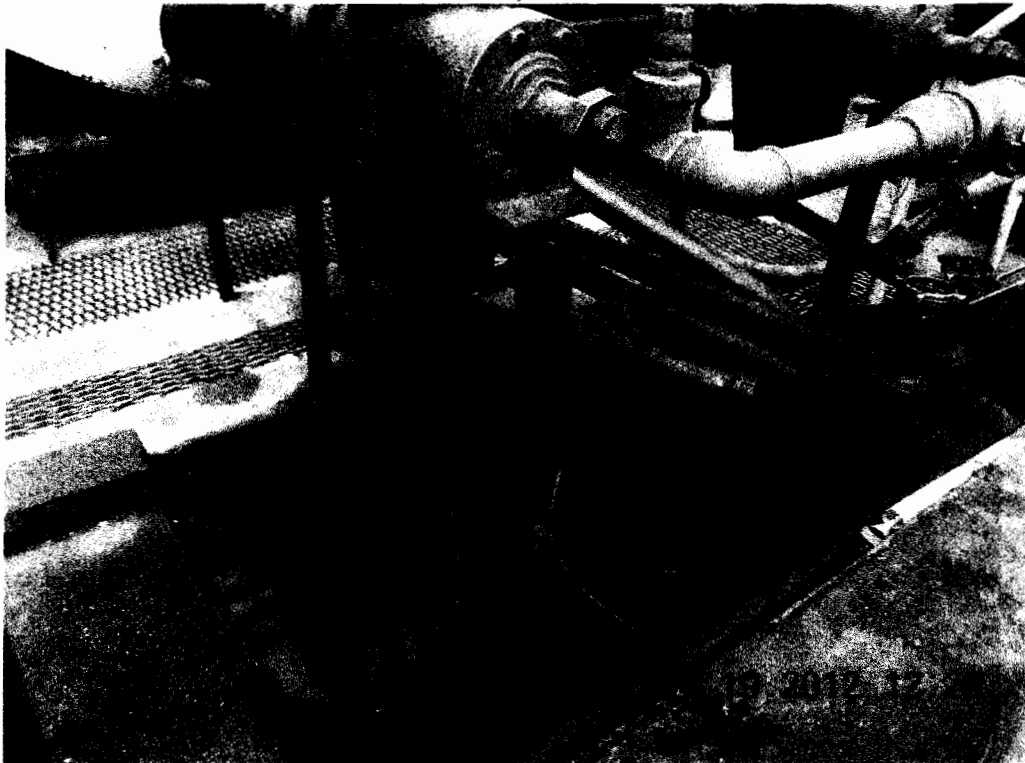


Photo #20: Blind sump in receiving area

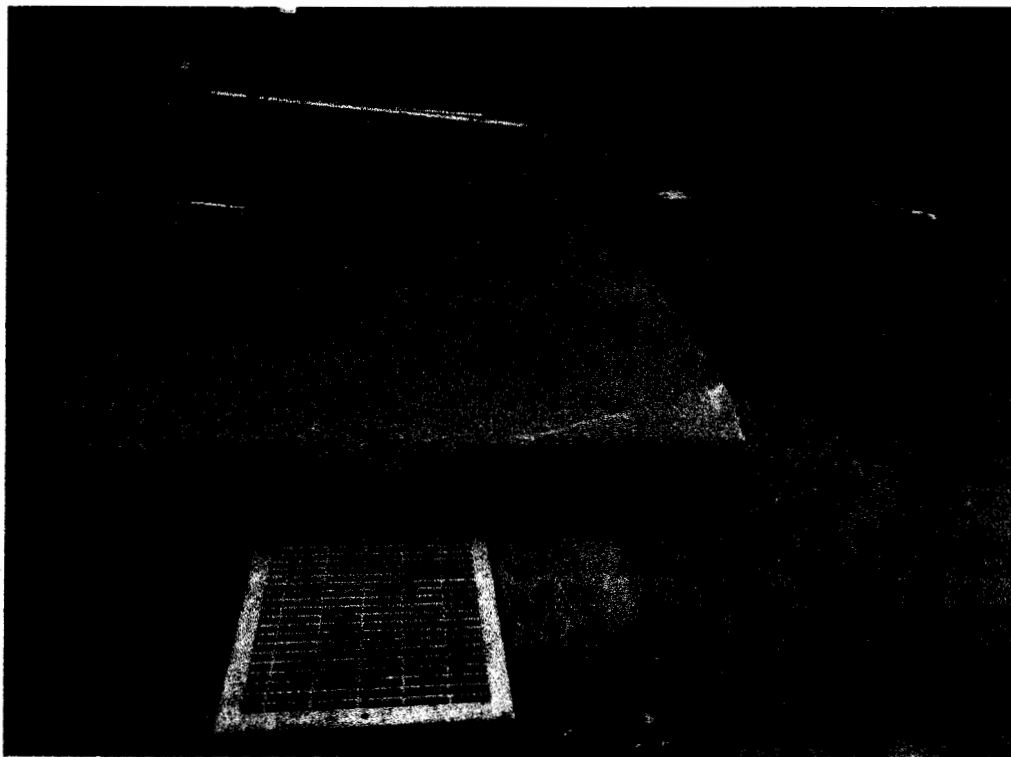


Photo #21: Sump 1 of 3

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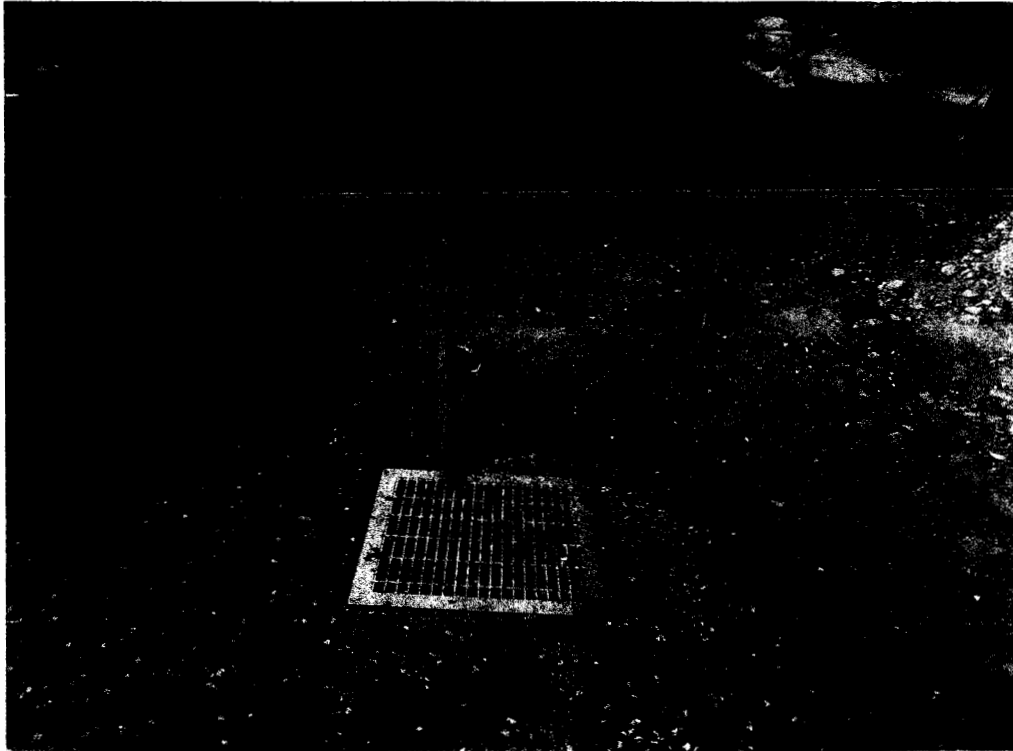


Photo #22: Sump 2 of 3



Photo #23: Sump 3 of 3

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Photo #24: Vapor recovery piping

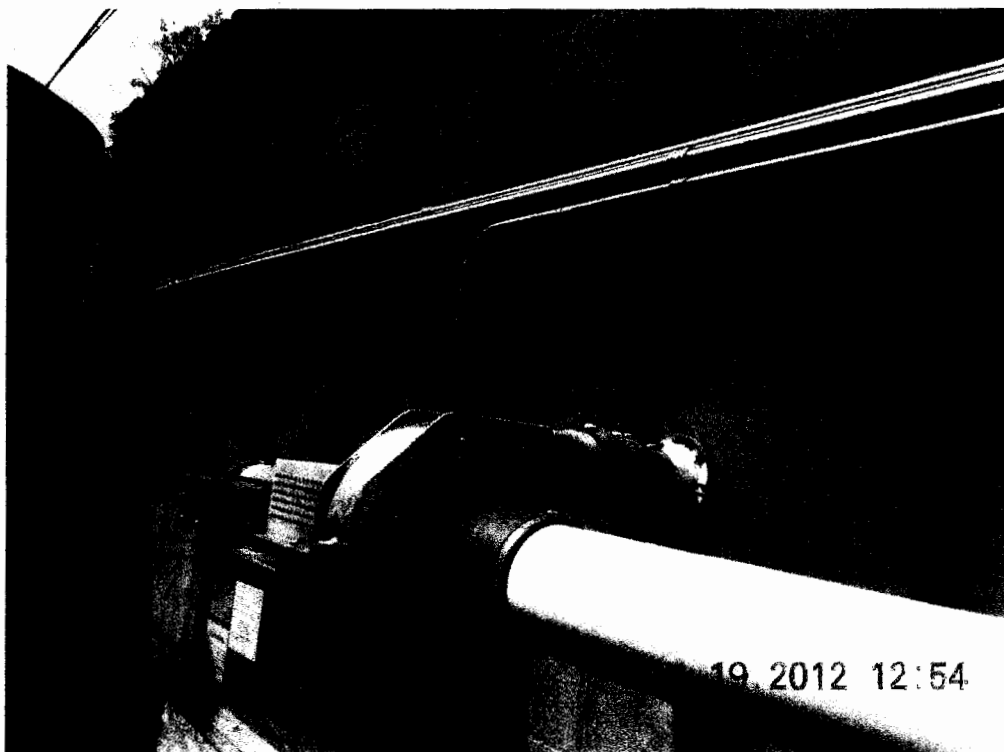


Photo #25: Biofilter unit

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Photo #26: 2 carbon filters

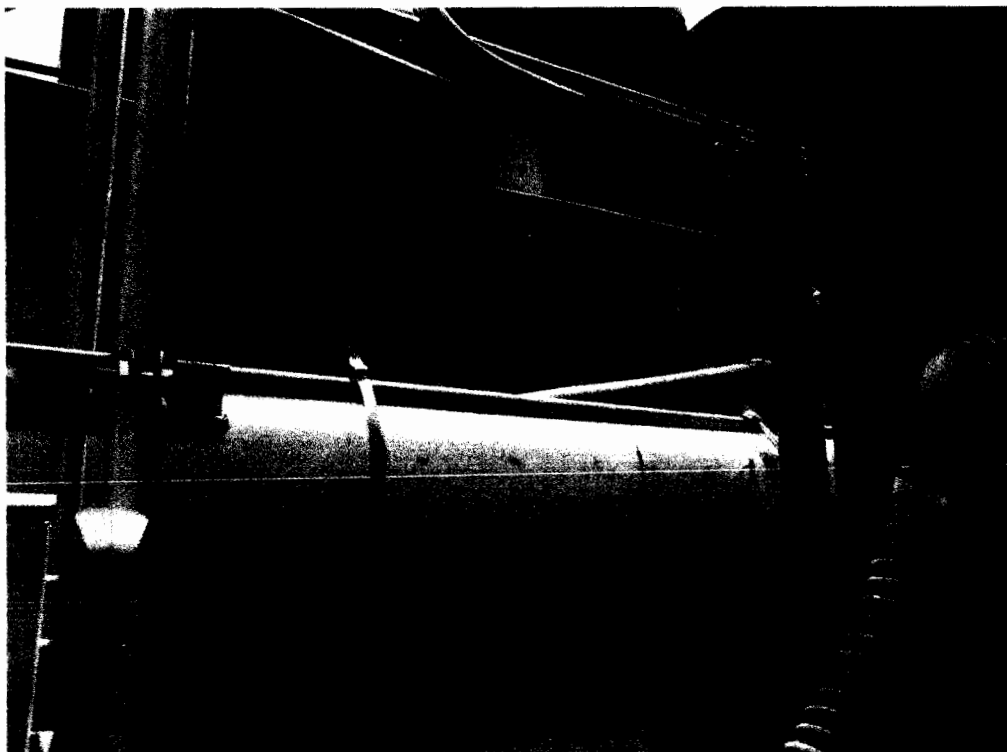
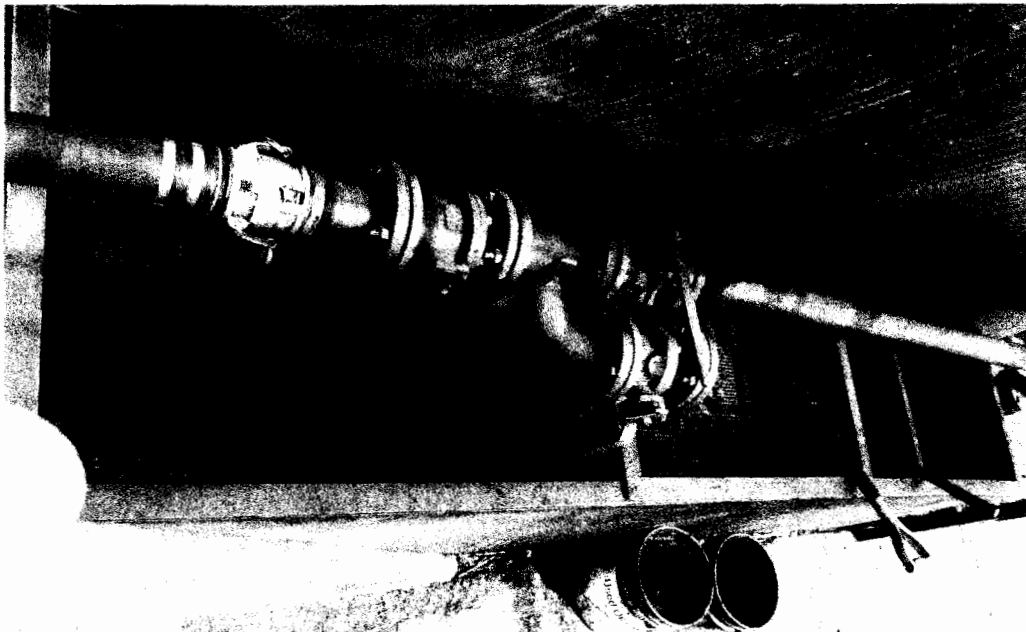


Photo #27: cooling tower

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Photo #28: Mesh filter and 55 gallon debris collection drum



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Photo #29: Collection trough

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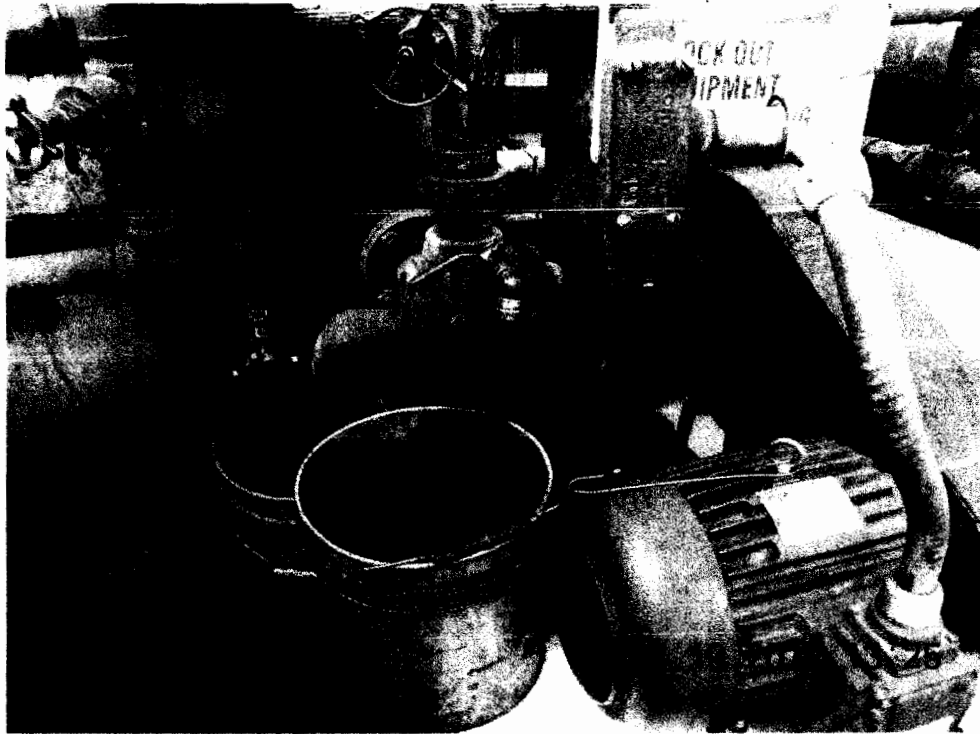


Photo #30: Sample tap



Photo #31: Drum storage area

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Photo #32: Drum of kerosene

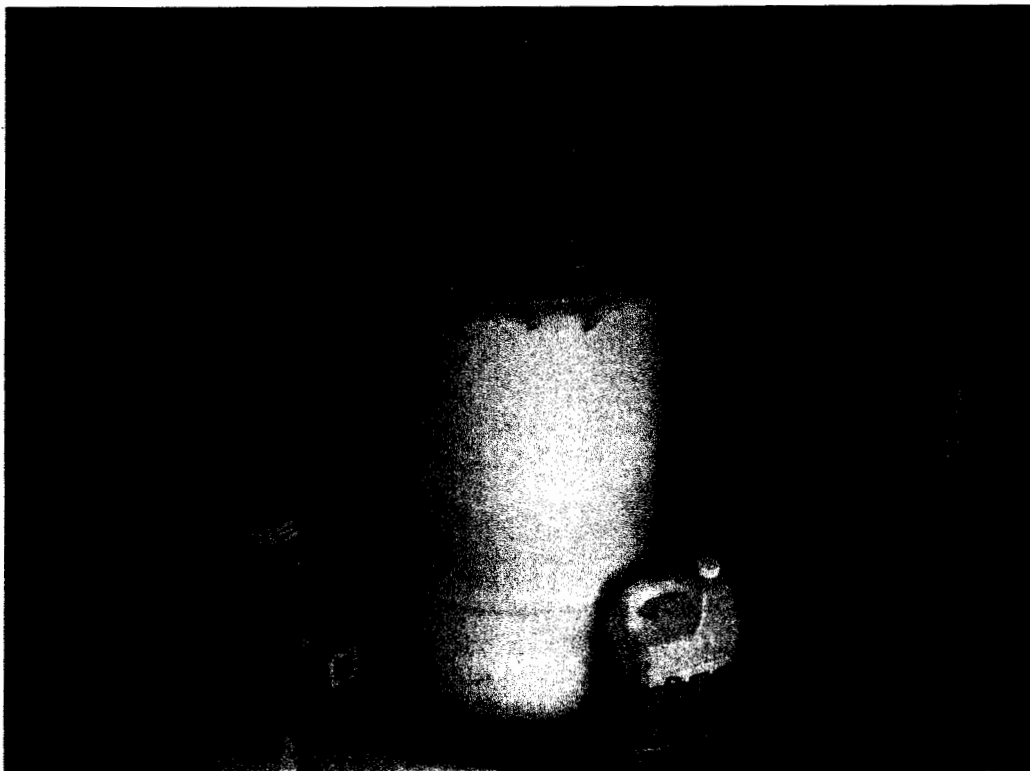


Photo #33: Drums of Isopar-E and cleaner

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Photo #34: Aerosol cans

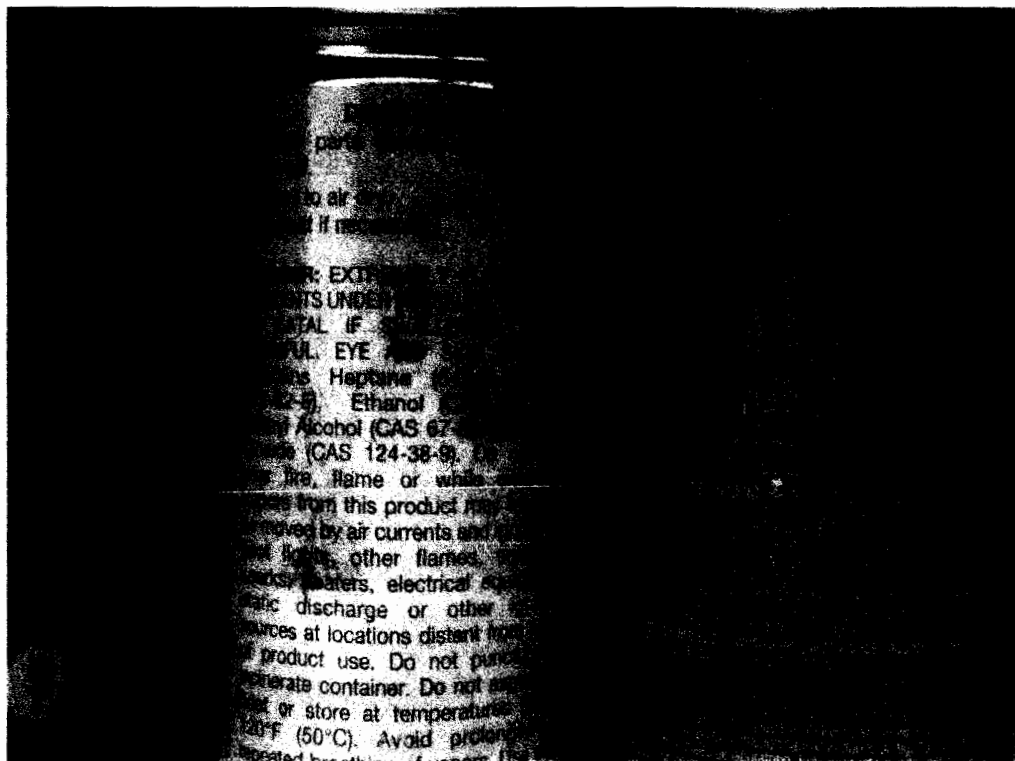


Photo 35: Up-close of aerosol can

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Photo #36: Used oil container in lab

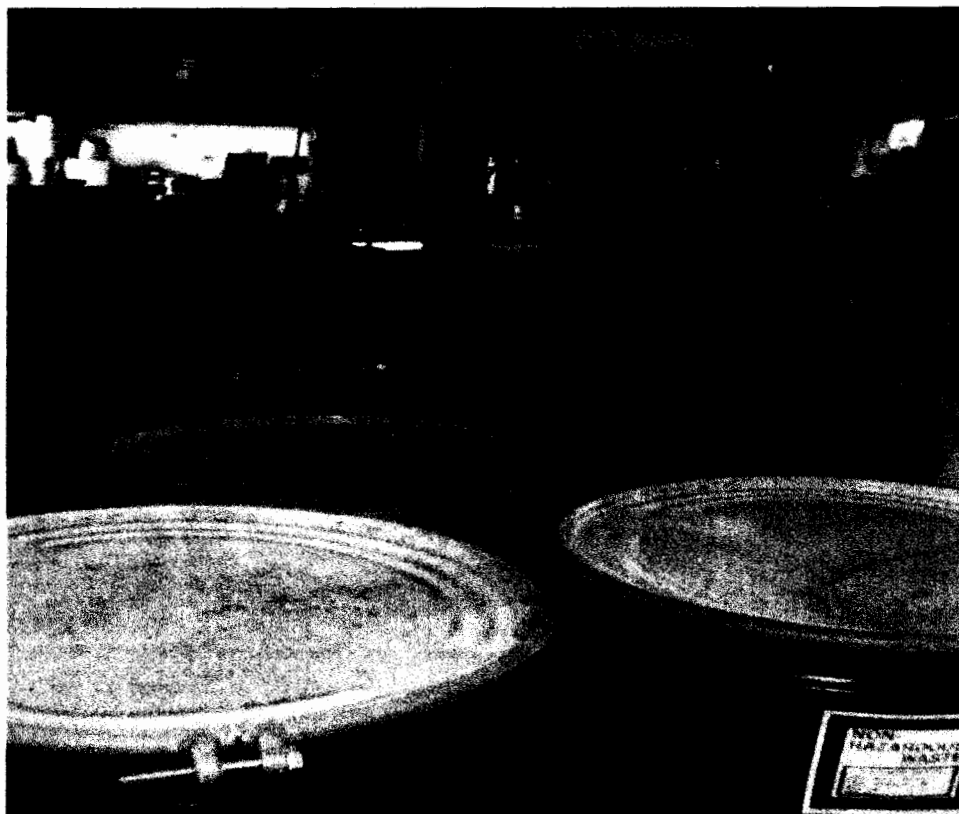


Photo #37: Non hazardous labeled drums in warehouse

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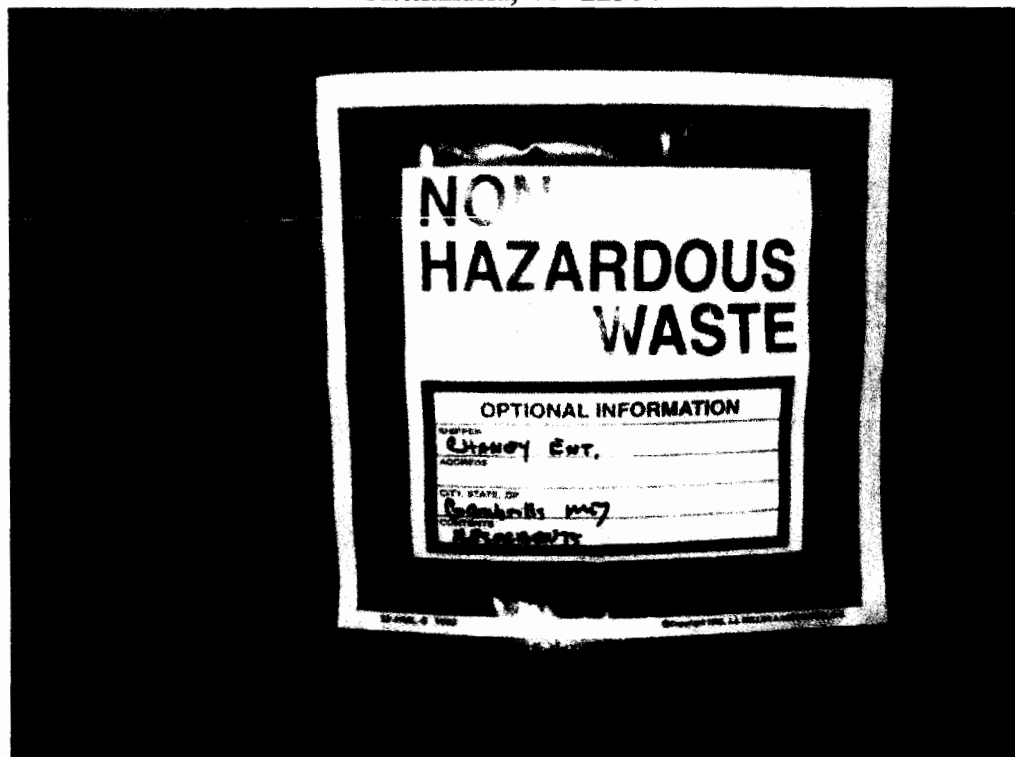


Photo #38: Up-close of labels on drums in warehouse

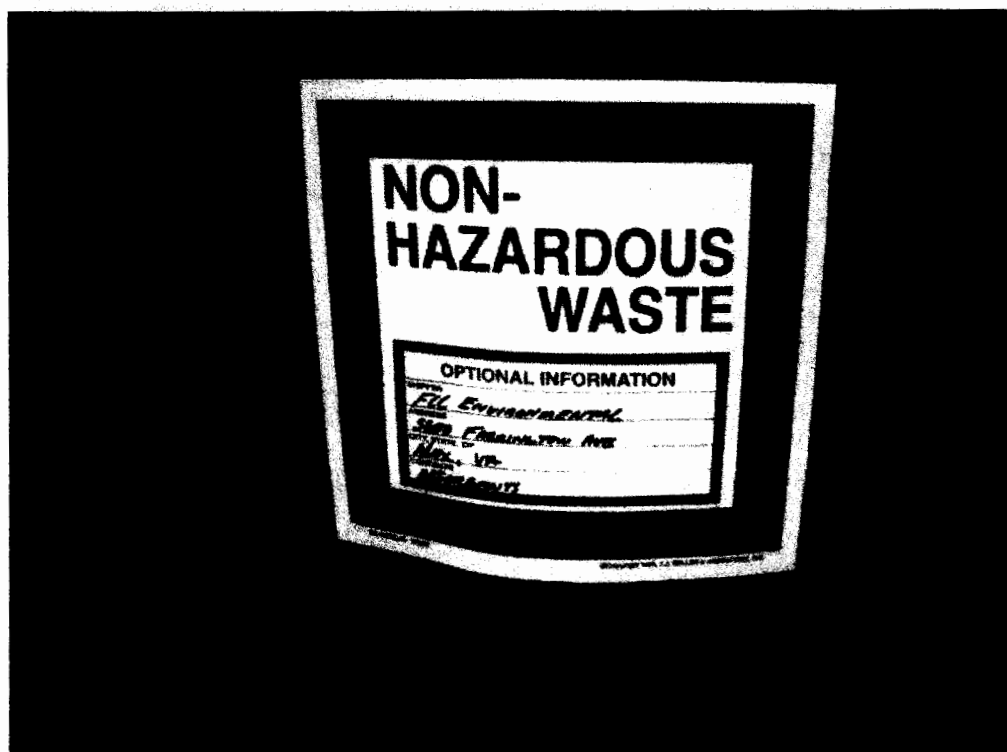


Photo #39: Up-close of labels on drums in warehouse

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Photo 40: Universal waste containers in warehouse

FCC Environmental LLC
5603 Courtney Ave
Alexandria, VA 22304

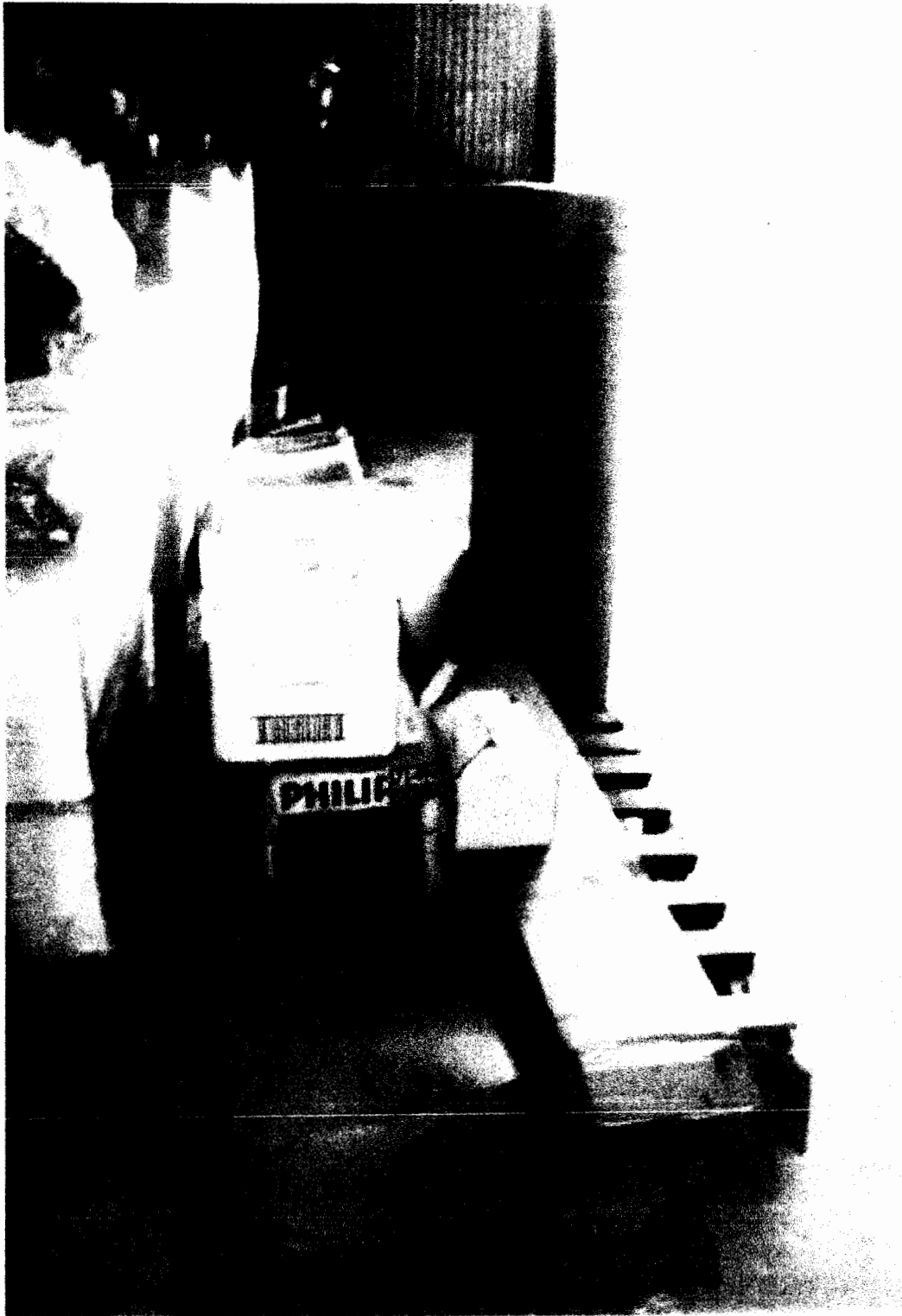


Photo 41: Universal waste containers in warehouse

List of Attachments

1	Facility layout
2	Facility service order and pick up paperwork
3	Used oil analysis plan
4	Waste profile for oily water
5	On specification fuel oil analysis information
6	Out of date emergency coordinator information
7	1/12/2012 service report
8	Facility response letter sent on 5/1/2012